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Competitive Environment and Business Strategies for Online Brokerage Firms in Korea

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Note: The paper is based on the findings made by Koh, Lin, Nguyen, and Soegiarto during the Nanyang Business School (NBS) Business Study Mission (BSM) to Seoul, Korea, in June 2001. NBS is part of Nanyang Technological University in Singapore, and one of the leading business schools in the Asia-Pacific region. The four persons were MBA students at NBS at that time. The BSM dissertation they have written under the supervision of A/P Park incorporates their BSM findings.

Abstract

Korea has recently experienced explosive growth in online stock trading, to the extent that the country is now one of the global leaders in this area. In this paper, we examine the implications of this phenomenon on the competitive environment facing retail brokerage firms in Korea as well as their potential strategic responses. Online trading entails low entry barriers and more demanding customers, and thus creates intense competitive pressures. Only those brokers that adapt their business models flexibly and quickly to the new environment, in particular by relying more on customized, fee-based services and less on trading commissions, will make the grade. Although our study is focused on Korea, most of its lessons, particularly those relating to strategic responses for brokers, are applicable to other markets as well.

1. Introduction

Figures 1 and 2 below summarize the growth of online stock trading in Korea, which has now become a global leader in this area. The speed and magnitude of the growth can be best described as extraordinary.

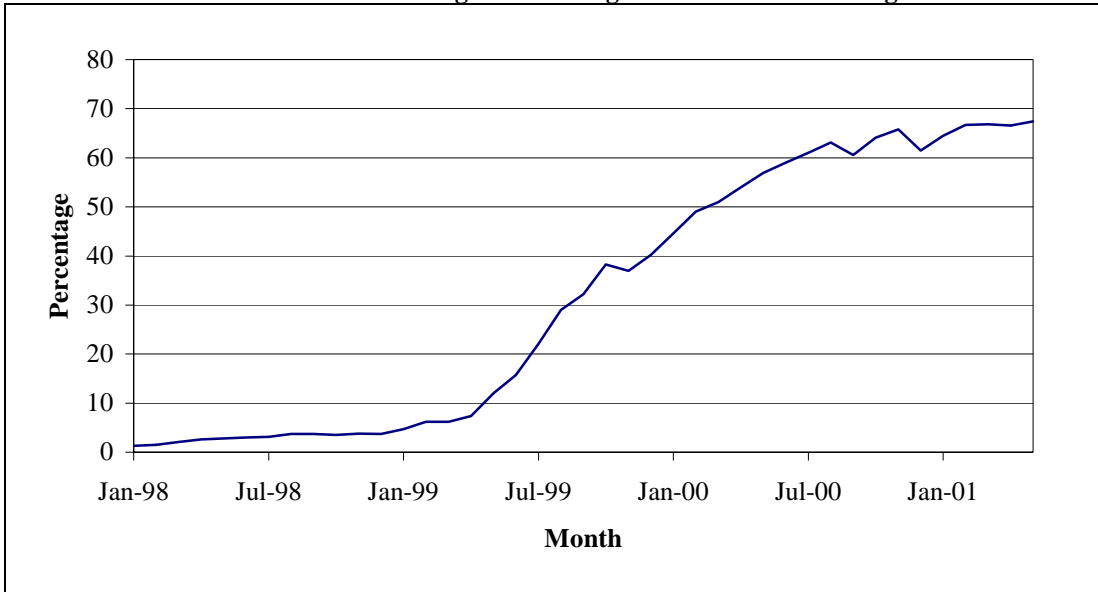
It was not until April 1997 that the Korean government amended the *Securities and Exchange Act* to allow trade orders by telephone, telegram, fax, computers or other electronic communications devices in addition to traditional document-based orders, thus making online securities trading possible. In January of 1998, only 1.3% of total trades were conducted electronically. By May 2001, the figure had soared to 67.4%, the highest in the world, with online trading

value surging 280-fold from 0.5 trillion won to 141 trillion won (Korean Industry Update, 2001).

As the interest of Koreans in online trading intensify, the number of online trading accounts continues to explode. In January 1998, there were only about 78,340 online securities accounts, but by May 2001, South Korea had some 4.17 million online securities accounts, a growth of 53 times. These accounts already accounted for 48.2% of all active securities trading accounts. Meanwhile, the monthly average online securities trading per account in 2000 was 30.94 million won, with the monthly average order number per account being 12.8 (Korea Securities Dealers Association, 2001b). In fact, a recent survey revealed that 92% of Korean retail investors preferred online trading to using traditional brokerages (*Asiaweek*, 2001).

With an online trading penetration rate in excess of 67%, Korea is the undisputed leader of Internet stock trading in the whole world. Its online trading percentage is higher than even the United States, which has an online penetration rate of around 40% (Yiu, 2000). This is quite remarkable in light of the fact that the United States has a significantly longer history of discount brokerage services than Korea. Among the 13 members of ICSA, an international securities industry association, Korea has the highest online trading percentage, surpassing second-place Canada's 40% and third-place France's 28%. Korea is also substantially ahead of high-income East Asian economies such as Japan, Taiwan, Singapore and Taiwan (Yiu, 2001).

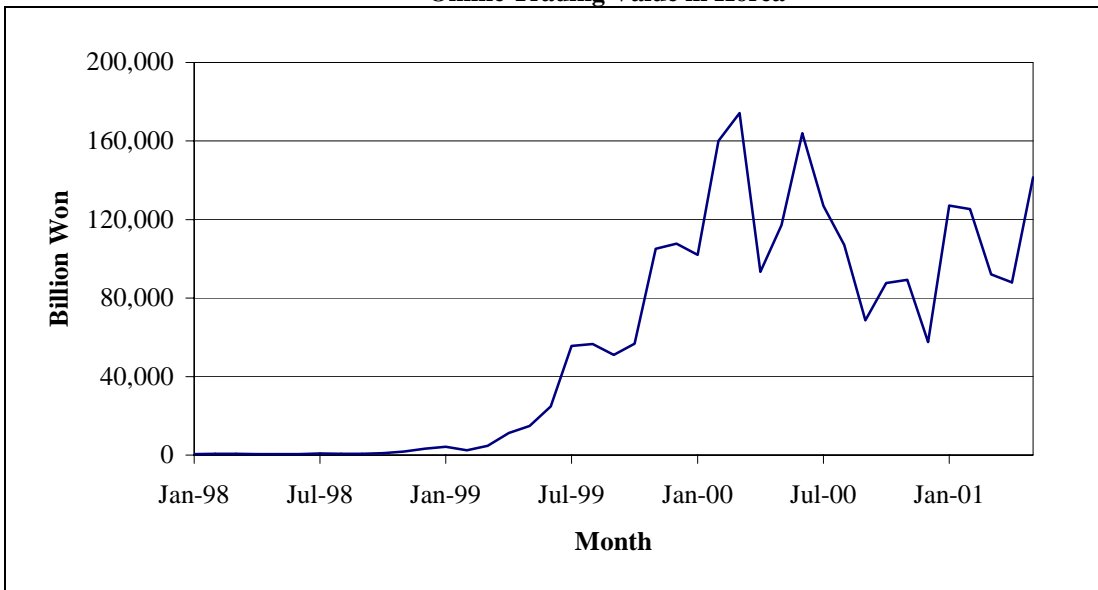
Figure 1
Online Stock Trading as Percentage of Total Stock Trading Volume



Source:

Korea Securities Dealers Association, (2001a)

Figure 2
Online Trading Value in Korea



Source:

Korea Securities Dealers Association (2001a)

The main part of our paper deals with the implications of this online trading boom on the retail brokerage industry in Korea. Since the Buttonwood Tree exchange that took place in New York in 1790s, the brokerage industry has undergone numerous evolutionary changes, many of them attributable to the emergence of new technologies. With the advent of Internet technologies and the subsequent Internet trading in the last few years,

a brand new industry has emerged, the Online Brokerage.

In the second section, we attempt to analyze the changing value proposition of the brokerage industry and predict what the future holds. In the third section, we examine the changing competitive environment of the industry using Porter's Five Forces model. In the fourth section, we look at how existing online brokerage

can ensure long-term sustainability in the face of tumultuous change. The fifth section concludes.

2. Changes in the Value Proposition of the Brokerage Industry

At its simplest, the securities industry is composed of exchanges, clearing houses, brokerages consisting of brokers and financial advisors, sellers/borrowers, and buyers/investors. Brokerages engage in the purchase, sale, and intermediation of securities. Securities firms serve four major functions in the financial market. First, they serve as financial intermediaries, matching individual/institutional investors with individual/institutional sellers, and corporate/governmental borrowers. Second, they provide a means of pricing and valuing investments by making timely information about investments available to the marketplace. Third, securities firms furnish a vehicle for the liquidation of investors' assets, as brokers and dealers trade securities for investors efficiently. Finally, they provide investment advice and customer-tailored financial instruments.

Many securities firms serve as both brokers and dealers, with the former trading on behalf of clients and the latter trading on its own account to make a profit. Most broker-dealer firms have headquarters to handle administration, and branch offices to sell and market company services, and assist clients. The type and extent of services offered beyond brokerage and dealing activities determine what category the security firm falls under, namely full-service or discount brokerage. Full-service firms provide a range of services for both retail and institutional customers (see Figure 3 below), while discount brokers usually act as the primary access channel for retail customers to reach the stock market (see Figure 4 below).

With the advent of the Internet, the brokerage industry has shifted to a new paradigm, electronic brokerage services (henceforth e-brokerage.) E-brokerage adds a new factor to the value-proposition of off-line traditional brokerages, regardless of whether they are full-service or discount: the Internet medium (see Figure 5 below).

This medium can help the dependent investors do their own research, and get informed about new initial public offerings (IPOs). It could also provide asset management tools. All in all, the Internet makes transaction more apparent with its speed and availability. In this environment, the investors' expectation from the

e-brokerages are more demanding than ever before. The most common belief is that e-brokerages must provide hassle-free automated transaction execution along with other products at a reduced price. Those products and services should be available 24 hours a day, seven days a week. Moreover, with the high automation capability of the medium, the services must be customised to match the tastes and styles of each investor. These could include easy and low-cost access to research reports, resource links, tools and analysis, charts and news, customizable portfolio views, and checking and banking services.

While offering new value propositions for the investors, both e-brokerage and traditional brokerage house can also benefit from the Internet. First of all, the Internet has become a new channel to acquire new customers and sell products and services. The Internet is an ideal medium to help brokerage firms to expose themselves to potential buyers globally and achieve efficient dissemination of product and service information. It expands the opportunity to participate in the customer acquisition processes and improve target customer identification. It facilitates new sales and delivery directly to consumers without time and place constraints. Online stock purchasing is a good example of a new channel that reduces transaction costs both for the seller and the buyer. The Internet also creates new products and services, such as the ability to transfer funds from bank accounts.

The Internet could help increase customer satisfaction as well. Because it is capable of mass customisation, the Internet allows custom marketing and personalized products, which translates into greater customer satisfaction and more transactions. Customized service requires an enriched understanding of the ways in which products are used, usage rates, and precise performance metrics, which is now possible via the Internet. Automation web sites can expand and improve customer support 24 hours a day, seven days a week.

Finally, the Internet is providing brokerages cost savings in overhead, labour, transactions, and customer services. It reduces the costs of providing customer support services by providing a cheaper communications medium (cheaper than telephone support) and lowers transaction cost by eliminating store fronts and improving business processes. Opportunities to streamline payment/receivables processes become a reality, thanks to the rapid development of online transaction technologies.

Figure 3
Full-Service Brokerage Value-Proposition

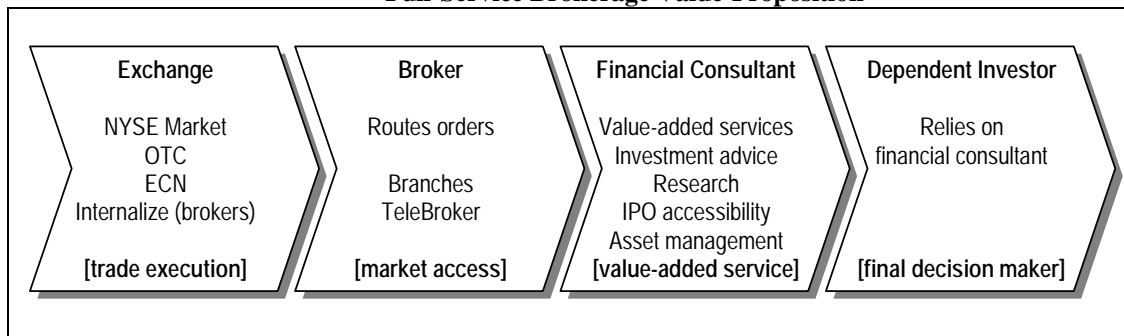


Figure 4
Discount Brokerage Value-Proposition

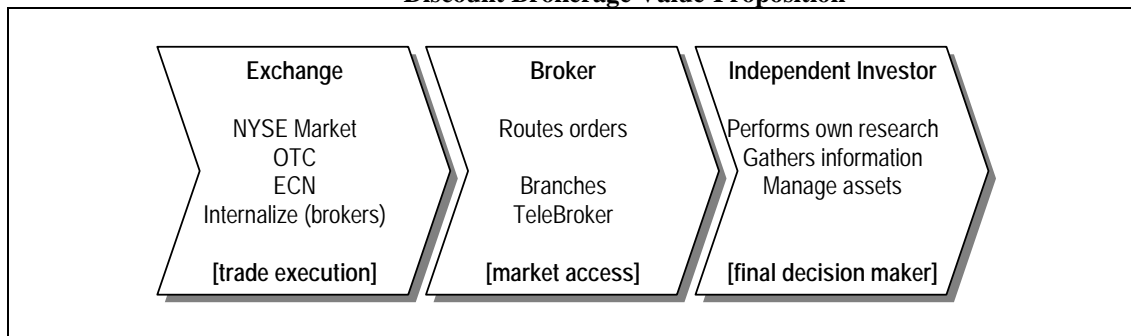
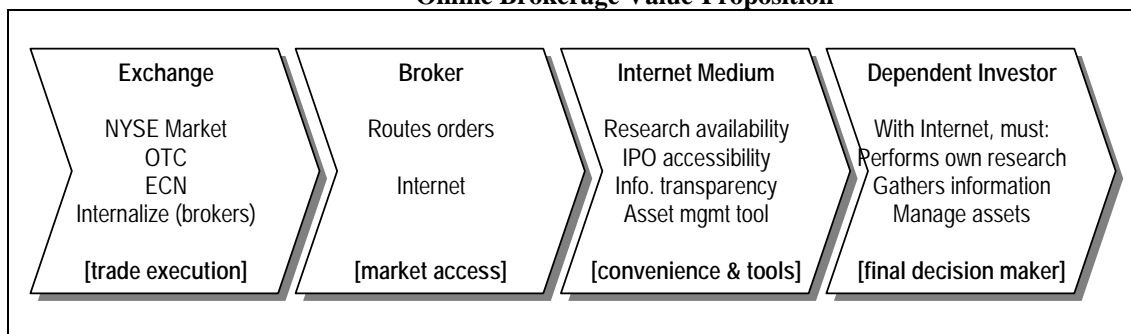


Figure 5
Online Brokerage Value-Proposition



In conclusion, brokerage firms are positioned to capture a larger share of the customer's wallet. One thing appears certain: in general, e-brokerage will continue to grow in popularity (Yoo, 2001).

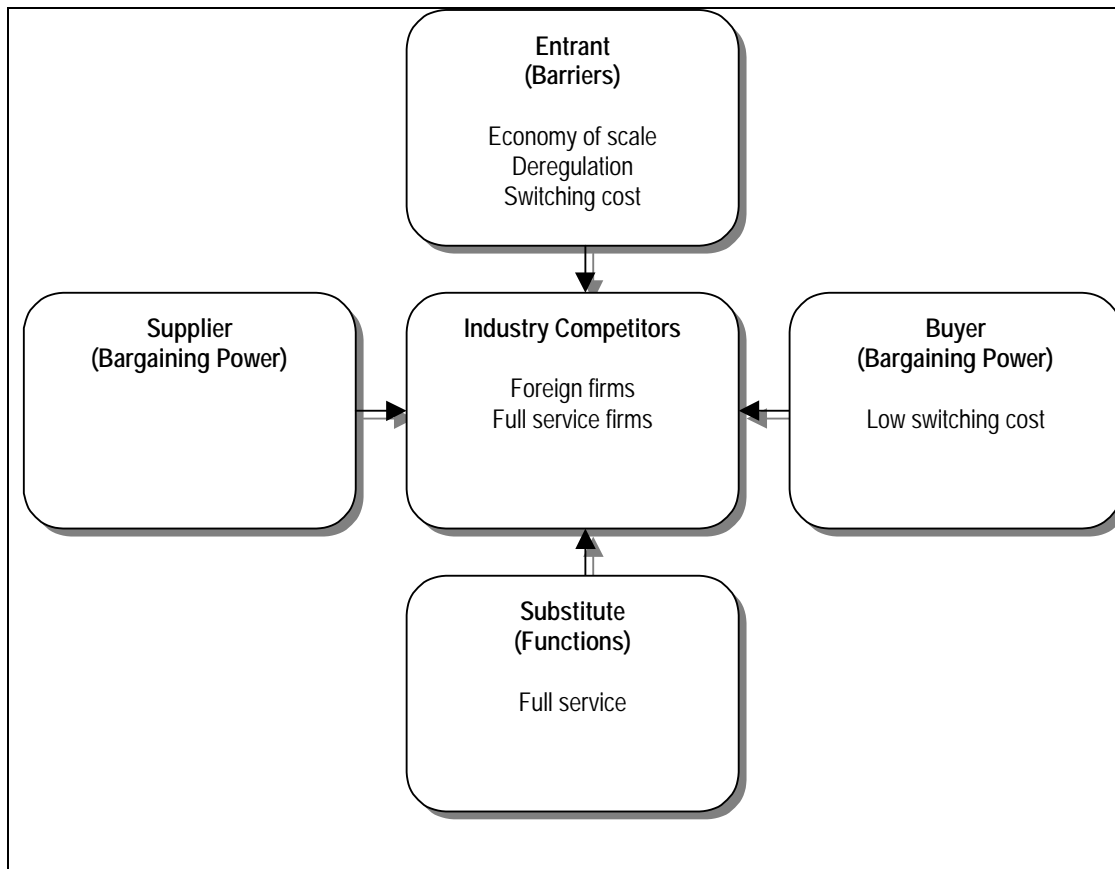
3. Changes in the Competitive Environment of the Brokerage Industry in Korea

Despite the advantages of an online business model, the e-brokerages are facing many new challenges. We will analyze the changing competitive landscape using Porter's Five Forces Model (see Figure 6 below).

3.1 Low Barriers to Entry Lead to More Competition

The most important difference between e-brokers and traditional brokers is that e-brokers lack of a physical presence (including the branch office and financial consultants) and the associated costs of development such as building cost, overhead, and employee wages. The second key difference is the brokers' strategic approach. While established companies have attempted to retain an established customer base, electronic brokers must follow a customer acquisition strategy. This means they must differentiate themselves, whether through low costs or value added services (Dong, 2001).

Figure 6
Korea Retail Online Brokerage Industry Analysis



Beyond the physical and strategic differences, e-brokers resemble discount brokers in several ways. They offer discounted prices and pass control of portfolio management to the investor and collect revenue from trade commissions, interest income, and service fees.

Competition is even more intense in the aftermath of the financial reforms that took hold after the economic crisis. The commission fee is now subject to fierce price wars between competitors. Deregulation also opens the market to global competition, allowing the participation of the foreign brokerage houses in the local market, making things even tougher for local players.

3.2 Customers' Greater Bargaining Power

Brokerage service firms must be aware of the modern consumer who has exposure to the Internet and technology. He or she has greater challenge of balancing personal and professional priorities and has less time and energy to select brokerage service providers. The Internet provides access to a much wider potential client base than a physical brick and mortar structure, but also makes it much easier for consumers to compare different service providers. Consumers have both less time to devote to selection of brokerage service provider and much greater control over the

selling process. This can make the cost of attracting and retaining customers become more significant as stiff competition forces e-brokers to offer more innovative and better products and services to win business (Lim, 2001).

3.3 More Intense Rivalry

E-brokers have delivered revolutionary products to the market with online trading. However, with more new participants coming to the market, it is extremely difficult for any player to differentiate itself from others through distinctive products. Moreover e-brokers are also facing increasing composition from the existing traditional full-service players, who can offer more comprehensive services for dependent investors. The inevitable maturing of the consumer market for online trading will thus force e-brokers to shift gears and move into non-trading investment business or try to appeal to a wider market.

3.4 Other Considerations

The fierce competition in the market has led to a situation in which most online brokerage houses depend on fee-per-trade for their revenue. Thus, this business

model is fundamentally in conflict with customers' best interest. The incentives to provide investors with stable long-term blue-chip securities are weak when revenues increase with the frequency of transactions. Because of this, some vendors are unbundling their products and services, such as research and access to IPOs. The day traders are the exception. However, they are attracting more regulatory scrutiny, which could have negative spillover effects for mainstream brokers. In addition to those challenges, traditional brokers, who decide to jump on the e-brokerage bandwagon, face substantial channel conflict with their network of dealers and brokers.

In conclusion, there are two main implications of online trading for the brokerage industry: severe competition and pricing pressure in certain segments. This is likely to continue, as the online brokerage space becomes more crowded with new entrants and traditional brokerage firms moving online and into new segments of the market. However, growth in the number of online trades should provide volume growth. Furthermore, it is possible that some market segments may experience price increases. We foresee a divergence of business models catering to either the asset management model or the high-volume trading model (or, in some cases, both). As competition continues to heat up and more emphasis is placed on assets, not trading volume, other value-added services will become an important component of e-brokerage. Consequently, only companies who actively change their business models to adapt to the changing environment will do well (Kang K.T., 2001).

4. Strategies for Long-term Success for Online Retail Brokerage in Korea

One thing we can be certain is that the advancement of technology is going to continuously transform the brokerage. The future is going to be very different from the present. In the words of Hamel and Prahalad, failure to anticipate and participate in the opportunities of the future will impoverish the firms. In an emerging industry with no precedents, anticipating the future is an enormously complex task. To compete more effectively for the future, it is necessary to build the best possible assumption base about the future and thereby develop the prescience needed to proactively shape industry evolution. Industry foresight will give a company the potential to get to the future first and control its evolution and thereby control its own destiny (Hamel & Prahalad, 2001). In particular, the online brokerage should ask itself three essential questions. First, what new types of customer benefit should the company provides in five, ten or fifteen years? Second, what new competencies should the company build or acquire to offer the benefits to the customer? Lastly, how should it reconfigure the interface with the customer?

Realizing that the future is very different from the present, the management should be made aware that it

takes "thinking of the box" to plot the future direction. Invoking economist Joseph A. Schumpeter's notion of capitalism's "creative destruction", the management should not cling to the past but always look for ways to improve on its existing business model. It is therefore crucial that there is a management in place that understands both the trend of new emerging technologies and how the needs of customers will evolve in the future.

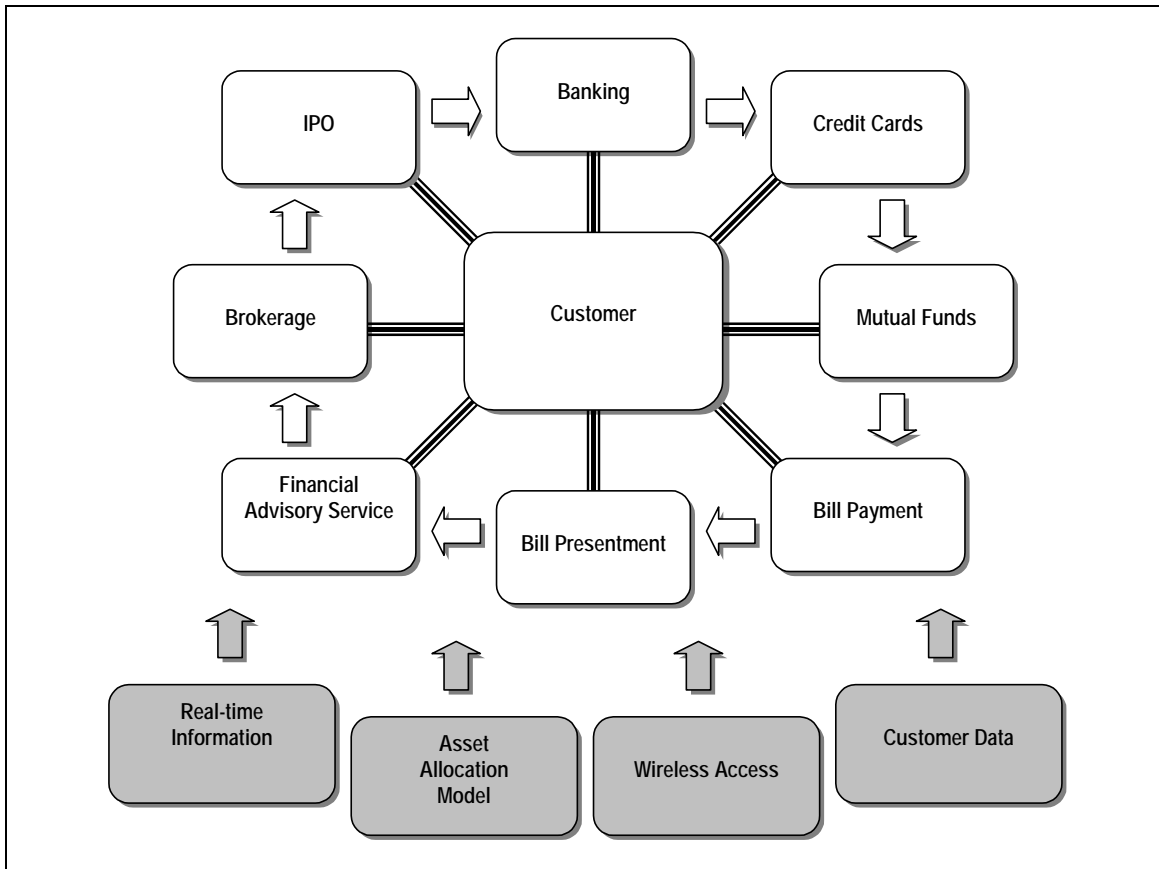
Online trading in Korea is expected to continue its growth as securities firms continue to engage in aggressive marketing, reduce commissions fees and develop advanced communication technologies. The number of new entrants coupled with the increasing use of online trading by institutional investors will also contribute to the growth of online trading. FSC anticipates that with the current razor thin commission, there will be probably a watershed of the securities business community. Many smaller and unprofitable brokers will be forced to close down. FSC has since moved to remove regulatory obstacles that limit the incentives of securities firm to go beyond merely satisfying regulatory requirements. This means shifting of their knowledge and resources from mere brokerage services and securities investment activities toward sophisticated corporate finance and investment banking activities (Jin, 2001).

Through value chain analysis, we predict that customers of the future will most likely demand the best of both worlds, that is low commissions and rich financial advisory services in a reliable and convenient transaction platform. Acknowledging that the customer is at the core of all strategies, we have developed the hub and spoke model to explore how online brokerage can excel in the long term (see Figure 7 below).

4.1 Execution and Advice

With the lowering of entry barriers and lifting of foreign participation in the brokering industry as a result of financial liberalisation, the commission rate has been facing strong downward pressure. Examples from the US market also point to the inevitable entry of the full service firms, local and foreign, to embrace the digital opportunities (*Business Week*, 2001). Online brokerage firms have to recognise that they have to offer more than low price execution to interact more meaningfully with customers. Most customers of online brokerage prefer it to the traditional broker due to lower transaction cost. However, transaction-related revenues are very volatile. To illustrate this point, the total online stock trading amount in March 2001 was down 47.1% as compared to March 2000 (Korea Securities Dealers Association, 2001b). Therefore it is critical for firms to move away from excessive reliance on brokerage transaction and more towards more stable income sources such as service fees, account fees and interest income.

Figure 7
Hub and Spoke Model with Customer as the Core



One effective way to increase revenues from a customer is to take advantage of the entire customer-wealth cycle. E-brokers can broaden their services by improving on their financial advisory services. As a customer moves into different stages of his wealth life cycle, his investment outlook will change accordingly. The crash of the dot.com and many other technology related stocks in the last year has made many investor realise that while submitting a trade may be quick, easy and simple, the process of making sound appropriate investment decisions has not become any quicker, easier or simpler. Charles Schwab, the top U.S. discount broker, understood this principle and has moved to take advantage of the customer wealth cycle early by adding investment advisory offerings via its acquisition of U.S. Trust & Co., an old-line private client bank, and CyberCorp, a technology and day trading firm (Coffin, 2001). With this move Charles Schwab sought to cater to the needs of customers in various stages of their wealth life cycles, and continue to earn their devotion and loyalty. In fact, hybrid firms such as Schwab that provide a wider range of services at a reasonable price will experience faster growth than the no frills online discount broker or full service broker.

4.2 Rise of the Assets Play

Another important benefit of exploiting the customer's wealth life cycle is asset accumulation. Although assets may come and go in good and bad markets, assets make for a more sustainable and less volatile franchise (Meyer, 2001). As the online brokerage moves into maturity, the performance metrics is no longer the number of customer accounts. Instead it becomes the total asset volume under management. In fact, Charles Schwab had US\$219 billion in assets and collected US\$180 million of mutual fund service fees in the second quarter of 1999 alone (Junnarkar, 2001). One effective way for Korean brokerage houses to accumulate assets is to expand beyond their brokering services to include services such as bill presentment and payment, credit cards, mutual funds and access to initial public offerings (IPOs). Becoming the single source supplier for all banking and investment related products and services will enhance the stickiness of the web sites, expand customer base and increase financial leverage.

4.3 Partnerships and Alliances

We have earlier illustrated through the hub and spoke model the concept of developing products and services with the customer at the core centre. However,

few firms will have the financial strength and intellectual bandwidth to create high quality financial content across the spectrum. Instead, the brokering house should act as an aggregator and presenter of market information and products rather than a creator of content. Content – such as mutual funds, asset allocation models, and IPO access – will be created by niche players with specific expertise in those areas. A smart brokerage firm will pull the content from a variety of sources, aggregate, package and sell it at the lowest cost and highest quality. Forming strategic partnership and alliances with well-known and trusted online players can expedite the account aggregation and also lend credibility to the brokerage house.

4.4 Harnessing Technology

One advantage of the Internet is the tracking abilities that it offers. Korean brokerages should recognise that they have an enormous database on their hand – data obtained from their customers' trading behaviour and activities, such as the types of web site visits. Through advanced data mining tools, financial companies can tailor complex offerings to their customers. Companies that utilise customer data effectively can develop a customer relationship that increases loyalty and cross-selling capability.

The emergence of broadband wireless applications has opened up many new possibilities of interface between customer and the financial companies. Applications such as wireless application protocol has enabled an investor to access the latest financial information through gadgets such as mobile phones, and personal organisers 24 hours, seven days a week. Financial companies should be aware of the latest development in communication technologies and learn to exploit those technologies to their advantage.

4.5 Building Brand Name

In the U.S. context, E*Trade has become the second largest online broker in terms of number of average daily trades, third in the number of accounts and fourth in client assets in a short span of four years. E*Trade strategy has focused on customer acquisition and building a strong brand through aggressive advertising campaign. Its marketing budget of US\$ 300 million in 2000 is even bigger than that of Schwab, which is 11 times bigger. Similarly, other online players have also spent substantial amount on advertising. A big part of this battle is to compete for brand awareness and market share, which most believe will lead to marketplace dominance. All the online trading players aim to be the power brand that is recognized to represent the entire category of online broking. Likewise, Korean online brokers should also invest heavily in marketing to build a strong brand name to capitalize on the growth of the equity culture in Korea after the economic crisis.

But having said that, the Korean online brokerage should not make the same mistake as their counterparts

in the U.S. One of the major complaints against the U.S. online brokers is the frequent disruption of service, which contradicts their advertising message of fast and reliable system. In 1996, AOL launched an aggressive advertising campaign yet only added a modest number of modems to service these new online accounts. As a result, an overwhelming number of new subscribers were unable to access to AOL and this created a huge public backlash against the company (Spitzer, 2001). Korean online brokerage players should make sure that they have sufficient system capacity to serve their customers before embarking on any big advertising campaign.

4.6 Summary of Strategies for Online Securities Firms

We have thus suggested that an online broker should provide its customers with services based on their needs. As customer needs change through his wealth life cycle, the financial company will replace one offering shown in the hub and spoke model with another shaped by new efficiencies and demand. Technological innovations permit the financial intermediaries to reach out into the market place and provide these services at a lower price than building the offering themselves. Strategic alliances and partnership also allow the companies to be nimble and react fast to customer changing needs and demands at a lower cost and more efficiently than competitors. In the long term, such efficiencies and cost reduction will translate into a sustainable competitive advantage for the company (Kang K.T., 2001).

5. Concluding Remarks

The emergence of Internet technology and the many innovative applications that are built on its foundation has rewritten many existing business rules and assumptions. In particular, the brokerage industry has undergone a major shake up in the last decade. The introduction of online brokerage has redefined the rules of the game and that has put many traditional brokerages scrambling for solutions or facing extinction. Such heightened competitive pressures are very much in Korea, which has experienced explosive growth of online stock trading and is now a world leader in this area.

The focus of our paper has been the impact of Korea's online trading boom on the competitive environment facing brokerage firms and their potential strategic responses. Since it entails a combination of low entry barriers for new e-brokers and customers who have more information and are therefore more demanding, online trading creates intense competitive pressures. Only companies who actively change their business models to adapt to the changing environment will make the grade. More specifically, the most viable business models probably involve focusing more on financial advice and other customized, fee-based services and away from high-volume trading. Brokers should

provide such services throughout the customer's wealth life cycle, which entails different needs at different times.

With the proliferation of Internet, online trading will eventually spread to all stock markets, the only difference being the timing and magnitude of penetration. Our paper will be useful to anyone who wishes to have a better understanding of online trading. In particular, we hope our section on long-term strategies for online brokerage will provide valuable suggestions to online brokers in other markets since they will face the same kind of intense competitive environment associated with the advent of online trading in Korea.

References

- [1] *Asiaweek*, "Not All Share and Share alike", <http://www.asiaweek.com/technology/2000/0811/com.e-vesting.html>, 20 March 2001.
- [2] *Business Week*, "Merrill's Battle", http://www.businessweek.com/1999/99_46/b3655001.htm, 12 March 2001.
- [3] Coffin R., "Technology Transforms the Securities Industry", [http://www.pwcglobal.com/extweb/pwcpublications.nsf/4bd5f76b48e282738525662b00739e22/f2328b0ba564ad95852569c9005bb30d/\\$FILE/3974perspectives_issue3_techtransforms_10-17.pdf](http://www.pwcglobal.com/extweb/pwcpublications.nsf/4bd5f76b48e282738525662b00739e22/f2328b0ba564ad95852569c9005bb30d/$FILE/3974perspectives_issue3_techtransforms_10-17.pdf), 1 May 2001.
- [4] Hamel G. and C.K. Prahalad, "Competing for the Future", HBS Press, Boston, 2001, p.79.
- [5] Jin B., "Facts and Implications of Online Trading in South Korea", 28 June 2001.
- [6] Junnarkar S., "Online Brokerages: Grow or Wither?", <http://yahoo.cnet.com/news/0,10000,0-1007-200-346712,00.htm>, 20 April 2001.
- [7] Kang K.T., "Online Stock Trading in Korea and E-trade's Strategies," 28 June 2001.
- [8] Korean Industry Update, "Internet January's Online Stock Trading Hits US\$100 Billion", 5 February 2001a, p.2.
- [9] Korea Securities Dealers Association, "Monthly Online Securities Trading in Korea", <http://ksda.or.kr/portfoliokorea/index.cfm>, 15 June 2001a.
- [10] Korea Securities Dealers Association, *Online Trading In Korea*, Seoul, April 2001b.
- [11] Lim J.S., "Online Stock Trading in South Korea and SK's Strategies", 29 June 2001.
- [12] Meyer L., "Will Online Brokerage gets Swallowed?", http://www.redherring.com/index.asp?layout=story&channel=20000002&doc_id=185001238, 25 April 2001.
- [13] Spitzer E., "Online Brokerage Industry Report", http://www.oag.state.ny.us/investors/1999_online_brokers/brokers.html, 16 April 2001.
- [14] Yiu E., "Online Broking Tally Sets Fast Growth Pace", *South China Morning Post*, 2 January 2001, p.BP2.
- [15] Yiu E., "Price War Looming for Online Traders", *South China Morning Post*, 1 December 2000, p.BP1.
- [16] Yoo N.G., "Online Stock Trading in South Korea and Hyundai's Strategies", 29 June 2001.